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Anillin Rabbit pAb

Catalog # AP97854

Product Information

Application	IHC-P, IHC-F, IF
Primary Accession	Q9NQW6
Other Accession	Q9NQW6
Reactivity	Human, Mouse
Predicted	Rat, Rabbit, Dog, Horse
Host	Rabbit
Clonality	Polyclonal
Calculated MW	124199
Physical State	Liquid
Immunogen	KLH conjugated synthetic peptide derived from human Anillin
Epitope Specificity	501-600/1124
Isotype	IgG
Purity	affinity purified by Protein A
Buffer	0.01M TBS (pH7.4) with 1% BSA, 0.02% Proclin300 and 50% Glycerol.
SIMILARITY	Contains 1 PH domain.
SUBUNIT	Interacts with F-actin. Interacts with CD2AP. May interact with RHOA. Interacts with FZR1/CDH1 during mitotic exit.
Post-translational modifications	Phosphorylated during mitosis. Ubiquitinated, and this requires FZR1/CDH1.
Important Note	This product as supplied is intended for research use only, not for use in human, therapeutic or diagnostic applications.
Background Descriptions	Anillin, also known as scraps homolog, is an evolutionarily conserved Actin-binding protein required for cytokinesis that was first identified in Drosophila melanogaster. Anillin is a ubiquitously expressed protein with highest expression levels in the central nervous system. It is predominantly found in the nucleus and it localizes to the cleavage furrow during cytokinesis, forming a ring with the help of Rac GTPase. During cytokinesis, Anillin interacts with CD2AP and functions to concentrate Rho A and maintain the localization of active Myosin. In Anillin knockout cells the cleavage furrow fails to complete ingression. Anillin expression levels fluctuate with the cell cycle, peaking in mitosis. Before the cell exits into G1, Anillin associates with E-cadherin and is ubiquitinated by the anaphase-promoting complex/cyclosome (APC/C). APC/C recognizes the D-box domain at the N-terminal region of Anillin. Anillin is commonly overexpressed in tumors and may serve as a potential biomarker.Anillin is required for cytokinesis. It is essential for the structural integrity of the cleavage furrow and for completion of cleavage furrow ingression.

Additional Information

Gene ID	54443

Other Names	FSGS8; Scraps; scra; 1110037A17Rik; 2900037I21Rik; RGD1561367; ANLN_HUMAN; ANLN; ANLN_MOUSE; anillin, actin binding protein; anillin (Drosophila Scraps homolog), actin binding protein; anillin, actin binding protein (scraps homolog, Drosophila)
Dilution	IHC-P=1:100-500,IHC-F=1:100-500,IF=1:100-500,Flow-Cyt=1ug/test
Storage	Store at -20 °C for one year. Avoid repeated freeze/thaw cycles. When reconstituted in sterile pH 7.4 0.01M PBS or diluent of antibody the antibody is stable for at least two weeks at 2-4 °C.

Protein Information

Name	ANLN
Function	Required for cytokinesis (PubMed: 16040610). Essential for the structural integrity of the cleavage furrow and for completion of cleavage furrow ingression. Plays a role in bleb assembly during metaphase and anaphase of mitosis (PubMed:23870127). May play a significant role in podocyte cell migration (PubMed:24676636).
Cellular Location	Nucleus. Cytoplasm, cytoskeleton. Cytoplasm, cell cortex. Cell projection, bleb. Note=Mainly found in the nucleus during interphase. Colocalizes with cortical F-actin upon nuclear envelope breakdown in mitosis and subsequently concentrates in the area of the prospective contractile ring in anaphase. This pattern persists until telophase, when the protein becomes concentrated in the midbody
Tissue Location	Ubiquitously expressed. Present at highest levels in the brain, at high levels in the placenta and testis, at intermediate levels in the intestine, ovary, skeletal muscle and thymus and at lower levels in heart, kidney, liver, lung, pancreas, prostate and spleen. In the kidney, it is widely expressed in tubules, but sparsely expressed in the glomerulus (PubMed:24676636). Expression is significantly increased in renal biopsy specimens from idiopathic FSGS (PubMed:24676636). Overexpressed in many tumor types including breast, colorectal, endometrial, hepatic, kidney, lung, ovarian and pancreatic tumors.

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.